How Agricultural Fertilizer Data is currently addressed in CAST

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Brief History of Chemical Fertilizer Data

Chemical fertilizers are manufactured and applied differently to urban and agricultural lands.

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Prior to 2017 (Phase 6), agricultural fertilizer use was determined from an assumed application rate based on crops present.
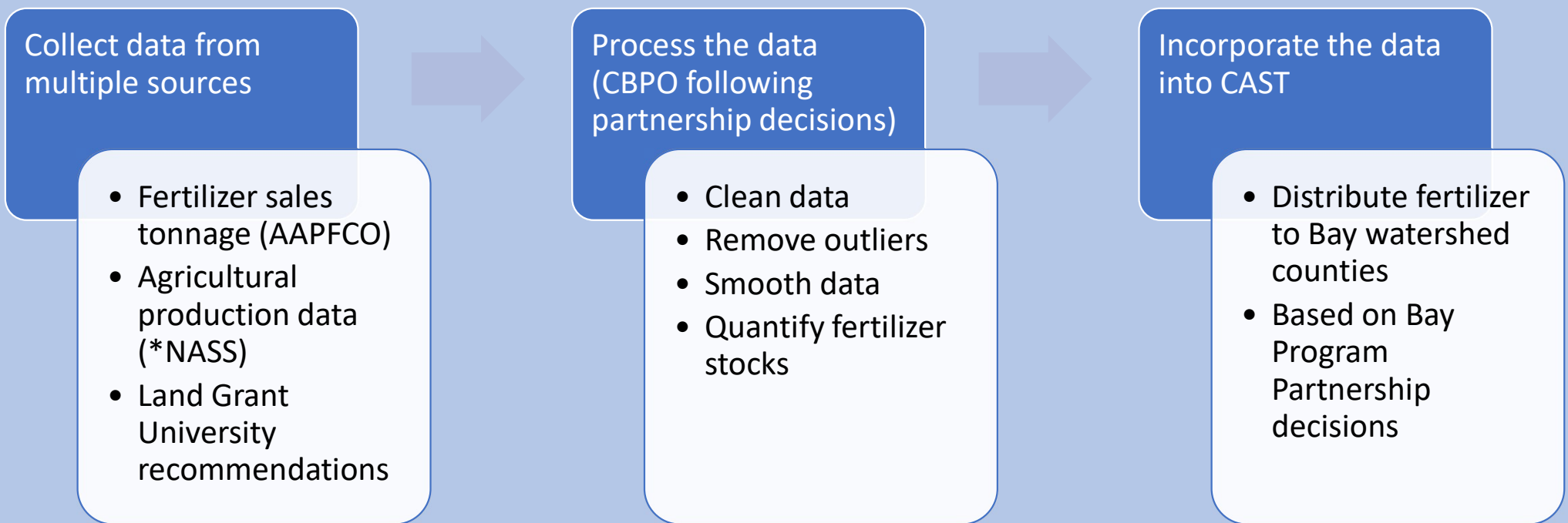
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Agricultural workshops were held in 2007 & 2013 examining alternative chemical fertilizer model inputs.

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In 2017, the Partnership agreed to use *AAPFCO data directly (with additional data streams) in the model.

*Association of American Plant Food Control Officials

How does the Partnership currently address chemical fertilizer data?

Collect data from multiple sources

- Fertilizer sales tonnage (AAPFCO)
- Agricultural production data (*NASS)
- Land Grant University recommendations

Process the data (CBPO following partnership decisions)

- Clean data
- Remove outliers
- Smooth data
- Quantify fertilizer stocks

Incorporate the data into CAST

- Distribute fertilizer to Bay watershed counties
- Based on Bay Program Partnership decisions

*NASS = National Agricultural Statistics Service

Summary

We need fertilizer data to estimate N and P applications to the land.

We use state and federally reported data sets.

Data are processed to remove high variation and location issues.

Processed data are applied at the county level, based on the reported crop types and yields.